



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,390	03/22/2004	Tomoaki Shimada	011350-333	9566
21839	7590	07/01/2005	EXAMINER	
BUCHANAN INGERSOLL PC (INCLUDING BURNS, DOANE, SWECKER & MATHIS) POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			SHRIVASTAV, BRIJ B	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SL

**Office Action Summary**

Application No.

10/805,390

Applicant(s)

SHIMADA, TOMOAKI

Examiner

Brij B. Shrivastav

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
 Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>3/22/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al (US 6,338,539), and further in view of Kawana (US 5,907,748).

Kobayashi et al teach an image forming device and method capable of replacing any of a plurality of cartridges, including a driving unit for moving the position of a toner cartridge, a detector unit for detecting necessity of replacing a toner cartridge, and a control unit for controlling the driving unit in order to move a toner cartridge that needs to be replaced to its specified replacement position (figure 3, numerals 30, 34, 36, 47; see column 4 and 5 for details). However, Kobayashi et al do not specifically teach a receiving unit for receiving a printing instruction, wherein the control unit furthers controls the driving unit in order to move each toner cartridge to a printable position, and to move the toner cartridge that needs to be replaced back to the replacement position after a specified printing is completed, when the printing instruction is received by the receiving unit while the toner cartridge that needs to be replaced has been moved to the replacement position and ready to be replaced. Kawana teaches a receiving unit for receiving a printing instruction, wherein the control unit furthers controls the driving unit in order to move each toner cartridge to a printable position, and to move the toner

Art Unit: 2859

cartridge that needs to be replaced back to the replacement position after a specified printing is completed, when the printing instruction is received by the receiving unit while the toner cartridge that needs to be replaced has been moved to the replacement position and ready to be replaced( figures 1, 2, 15-17; for details see column 12-14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt teaching of Kawana with the teaching of Kobayashi et al to improve printing process, improving print quality.

As regards to claims 2-8 and 10-16, Kowayashi et al further teach limitations of detecting a empty toner cartridge, detects the necessity of replacing a toner cartridge, and having moveable toner cartridges of cyan, magenta, yellow and black colors and their carrier (figures 3-5, 8, 11, 12 and 15).

2. Claims 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawana (US 5,907,748). And further in view of Kobayashi et al (US 6,338,539).

As regards to claims 17-25, Kawana teaches a program product for controlling an image forming device capable of replacing any of a plurality of cartridges, said program product causing the image forming device to execute a process of cartridge replacement (figures 1, 3 and 14-17; columns 8 and 12-14 for details). However, Kawana does not specifically teach the steps of the instant invention of detecting necessity of replacing toner cartridge and controlling a driving unit for moving the position of the toner cartridge in order to move a toner cartridge that needs to be replaced to a specified replacement position preset for toner cartridge replacement, when the necessity of replacing a toner cartridge is detected, wherein steps of

Art Unit: 2859

controlling the driving unit are taken in order to move each toner cartridge to printable position, and to move toner cartridge that needs to be replaced back to its replacement position after a specified printing is completed, when a printing instruction is received while the toner cartridge to be replaced has been moved to said replacement position and is ready to be replaced. Kowayashi et al teach the steps of the instant invention of detecting necessity of replacing toner cartridge and controlling a driving unit for moving the position of the toner cartridge in order to move a toner cartridge that needs to be replaced to a specified replacement position preset for toner cartridge replacement, when the necessity of replacing a toner cartridge is detected, wherein steps of controlling the driving unit are taken in order to move each toner cartridge to printable position, and to move toner cartridge that needs to be replaced back to its replacement position after a specified printing is completed, when a printing instruction is received while the toner cartridge to be replaced has been moved to said replacement position and is ready to be replaced (figure 3, numerals 30, 34, 36, 47; see column 4 and 5 for details). It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt teaching of Kobayashi et al with the teaching of Kawana to improve printing process, improving print quality.

As regards to claims 18-25, Kawana further does not teach limitations of detecting a empty toner cartridge, detects the necessity of replacing a toner cartridge, and having moveable toner cartridges of cyan, magenta, yellow and black colors and their carrier. Kobayashi et al teach limitations of detecting a empty toner cartridge, detects the necessity of replacing a toner cartridge, and having moveable toner


Art Unit: 2859

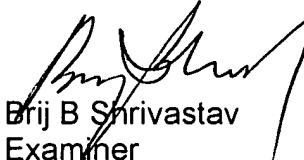
cartridges of cyan, magenta, yellow and black colors and their carrier (figures 3-5, 8, 11, 12 and 15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt teaching of Kobayashi et al with the teaching of Kawana to improve printing process, improving print quality.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brij B. Shrivastav whose telephone number is 571-272-2250. The examiner can normally be reached on 7 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
June 27, 2005

  
Brij B Shrivastav  
Examiner  
Art Unit 2859

\*\*\*